

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723610001-1

Begin

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723610001-1"

REEL # 236

Siegman, S Ye.

ZYADZIO, A.M., dotsent; PIATONOV, P.N., dotsent; KOFMAN, S.Ye.,  
inzhener; SOKOLOV, A.Ya., professor, doktor tekhnicheskikh nauk,  
redaktor; KHOM'NITSKAYA, A.Z., redaktor; GOTLIB, E.M., tekhnicheskiy  
redaktor.

[Pneumatic tube transportation in flour mills] Pnevmaticheskii  
transport na sel'skokhoziaistvennykh mel'nitsakh. Pod red. A.IA.  
Sokolova. Moskva, Pishchepromisdat, 1954. 69 p. (MLRA 8:1)  
(Pneumatic-tube transportation) (Flour mills)

KOFMAN, S.Ye., insh.

Improving working conditions in clothing factories. Shvein.  
prom. no. 3:18-20 My-Je '59. (NIRA 12:9)  
(Clothing industry) (Factories--Heating and ventilation)

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723610001-1

KOTMAN, S.Ya. inzh.

Modernization of collective farm mills. Makh.sil'.hosp. 8  
no.9: 19-20 S '59. (MIRA 13:1)  
(Flour mills--Equipment and supplies)

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723610001-1"

KOFMAN, S.Ye., insh.

Adjusting AKK-1,2 units for the conveying of mixed feeds. Makh.  
sil'. hosp. 11 no. 7:26 Jl '60. (MIRA 13:10)  
(Conveying machinery)

KOFMAN, S.Y.B., insb.

AVM-20 roller mill for agricultural use. Mekh. sil'. hosp. 11 no.11;  
24-25 N '60. (MIRA 13:11)  
(Grain-milling machinery)

Ye.  
KOPMAN, S., inzh.; MASTEROV, M.

Mechanization and pneumatic-tube transportation at rural flour mills. Muk.-elev. prom. 26 no. 12:21-22 D '60. (MIRA 13:12)

1. Tsentral'noye konstruktorsko-tehnologicheskoye byuro Odesskogo oblastnopravleniya (for Kopman). 2. Krasnogarmeyskoye mel'zavodupravleniye (for Masterov).

(Grain-milling machinery) - (Pneumatic-tube transportation)

KOTLOVANIE, t. d.

15-57-4-5402

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 4,  
p 185 (USSR)

AUTHORS: Gorbunov-Posadov, M. I., Shekhter, O. Ya., Kofman V. A.

TITLE: Soil Pressure on the Rough Buried Foundation and Unrestricted Deformations of a Trench (Davleniye grunta na zhestkiy zaglublennyj fundament i svobodnyye deformatsii kotlovana)

PERIODICAL: Tr. n.-i. in-ta osnovaniy i fundamentov, 1954, Nr 24,  
pp 39-80.

ABSTRACT: Bibliographic entry

Card 1/1

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723610001-1

KOFMAN, V. A.

GORBUNOV-POSADOV, M.I.; SHEKHTER, O.Z.; KOFMAN, V.A.

Earth pressure on a hard embedded foundation and free deformation  
of the foundation pit. Trudy NII zan. i fund. no.24:39-80 '55.  
(Earth pressure) (Foundations) (MLRA 8:3)

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723610001-1"

Kofman, V. A.

124-1957-10-12025

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 10, p 118 (USSR)

AUTHOR: Kofman, V. A.

TITLE: Distribution of Stresses and Deformations Due to a Vertical Force Acting Within the Ground (O raspredelenii napryazheniy i deformatsiy ot deystviya vertikal'noy sily vnutri grunta)

PERIODICAL: Tr. N.-i. in-ta osnovaniy i fundamentov, 1956, Nr 30, pp 67-73

ABSTRACT: Numerical data on the displacement and stresses in a semi-infinite elastic solid by action of a vertical force are presented. The calculations are carried out on the basis of the accurate solution given by Mindlin (Physica, 1956, Vol 7, Nr 5) and developed also in a paper by Mindlin and Chen (Mekhanika, Sb. perev. i obz. in. period. lit., 1952, Nr 4, pp 118-133). The above data, as well as their isolines, are given for a value of Poisson's ratio equal to 0.35.

O. Ya. Shekhter

Card 1/1

KOFMAN, V.A.

124-11-13209

Translation from: Referativnyy Zhurnal, Mekhanika, 1957, Nr. 11, p. 135 (USSR)

AUTHOR: Krechmer, V. V.

TITLE: Calculation Method for Plank Walls as Elastic Structural Elements with Due Consideration to the Compressibility of the Ground in the Restraining Encasement Area. (Metod rascheta shpuntovykh stenok kak uprugikh konstruktsiy s uchetom szhimayemosti grunta v oblasti zadelki)

PERIODICAL: Tr. N.-i. in-ta osnovaniy i fundamentov, 1956, Nr. 30, pp 74-110

ABSTRACT: Calculation of the strength and deformation of a grooved wall loaded with earth fill, with or without a tie-down at the anchorage support. The upper portion is considered loaded by the active pressure of the fill. The lower portion is calculated as a bar which is elastically fastened to an elastic semi-plane. The contact problem is solved for an elastic bar and semi-plane with a load and moment representing the action which the fill exerts on the bar. No account is taken of the discontinuity in the semi-plane created by the insertion of the bar. The friction between the soil and the plank is disregarded. The stresses in the semi-plane are determined by means of Melan's

Card 1/3

124-11-13209

Calculation Method for Plank Walls as Elastic Structural Elements with Due Consideration to the Compressibility of the Ground in the Restraining Encasement Area. (Cont.)

formula as modified by the reviewer (Gorbunov-Posadov, M. I., Shekter, O. Ya., and Kofman, V. A., Tr. N.-i. in-ta osnovaniy i fundamentov, 1954, Nr. 24, pp. 39-80; Referativnyy Zhurnal, Mekhanika, 1956, No. 11, 7680). The displacements are determined according to formulas adduced in the same work. The contact conditions, namely, the equality of the respective horizontal displacements, are imposed at three points only. This enabled the Author to relieve the computer from the need for the simultaneous solution of a system of equations.

The plastic deformations in the soil close to the upper portion of the elastic anchorage manifold are also disregarded. However, it is recommended that the depth to which the planks are driven into the ground be established from the requirement that the portion where the reaction pressure exceeds the passive pressure of the soil (with due consideration to the coupling) extend over no more than one-fourth of the length of the elastic clamping portion.

It is proposed that the lower end of the plank, which in the basic calculation is assumed to be free, is neither displaced nor rotated because of the presence of the stress-resistant semi-plane. There-

Card 2/3

124-11-13209

**Calculation Method for Plank Walls as Elastic Structural Elements with Due Consideration to the Compressibility of the Ground in the Restraining Encasement Area. (Cont.)**

fore, it is proposed that the reaction of the anchoring tie-down be determined as the reaction of a rigid support of a beam which is clamped at its lower end and loaded with an active pressure in its upper part and a reaction pressure in its lower part.

(M. I. Gorbunov-Posadov)

Card 3/3

VAYSBURD, M.S.; KOFMAN, V.B.; MURAKHVER, N.P.; STEPANOV, A.I.

About a book on the design and calculation of refrigerating machines  
and apparatus. Khol. tekhn. 38 no. 1:61-62 Ja-Y '61.

(Refrigeration and refrigerating machinery) (MIRA 14:4)

KOFMAN, V.S.

Characteristics of the Pre-Cambrian interface of the Devonian  
in the northern part of the Tikhvin bauxite-bearing region.  
Mat. po geol. i pol. Iskop. Sver. Zap. RSFSR no. 3:159-164 '62.  
(MTRU 1781)

KOFMAN, V.S.

Basic characteristics of the section of Lower Carboniferous  
sediments in the southern Lake Onega region. Vest. LGU 19  
no.12:61-73 \*64  
(MIRA 17:8)

KOTMAN, Ye.

Research laboratory studies on the organization of labor and industry.  
Steel' 17 no.2:187-188 P '57. (MIRA 10:3)

1. Zavod "Zaporeshstal".  
(Steel industry)

KOFMAN, Ye.; KAMINSKIY, N.; LEVIN, S.

On establishing a norm plan in metallurgical production.  
Sots. trud 4 no.7:85-88 J1 '59. (MIRA 13:4)  
(Metallurgical plants--Production standards)  
(Wages)

KAMINSKIY, N.; KOPMAN, Ya.

Methodology for converting planned wage fund when main workshops over-  
fulfill the production plan. Biul.nauch.inform.: trud i zar.plata 4  
no.5:49-51 '61. (MIRA 14:5)  
(Zaporosh'ye—Steel industry) (Wage payment systems)

SOBOLEV, V.; KOFMAN, Ye.

Organization of labor and production at a leading steel-smelting plant. Sots.trud 5 no.2:110-113 F '60. (MIRA 13:6)

1. Nachal'-ik normativno-issledovatel'skoy laboratorii Upravleniya chernoy metallurgii Zaporezhskogo sevmarkhosa (for Sobolev) 2. Nachal'nik ot dela organizatsii truda zavoda "Zaporezhstal'" (for Kofman).

(Smelting--Labor productivity)

KAMINSKIY, M.; KOFMAN, Ye.

Accounting for wage fund disbursements. Biul.sotsch.inform.:  
trud i zav.plata 3 no.3:26-27 '60. (MIRA 13:8)  
(Zaporozh'ye—Steelworks) (Wages)

KOPMAN, Ye.: KAMINSKIY, N.

More on wages and qualitative indices. Sots.trud 5 no.8:  
112-113 Ag '60. (MIRA 13:11)

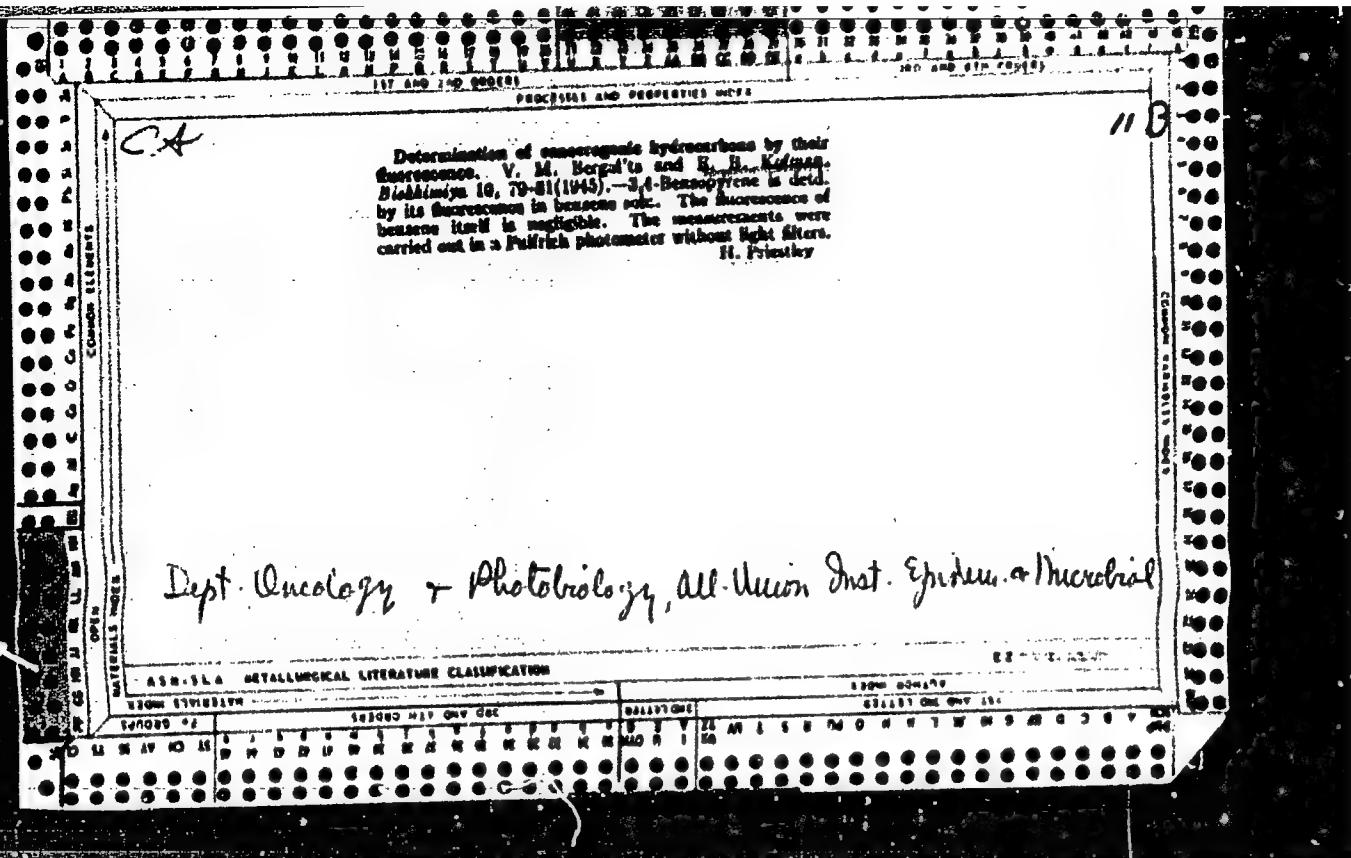
1. Nachal'nik otdela organizatsii truda zavoda "Zaporoshstal'"  
(for Kopman). 2. Inzhener otdela organizatsii truda zavoda  
"Zaporoshstal'" (for Kaminskiy).  
(Zaporosh'yee--Metallurgical plants--Quality control)

VOL'PYAN, Ye.L., kand.med.nauk; KOFMAN, Ye.A.

Clinical value of the laboratory determination of the sensitivity  
of a urinary infection to antibiotics. Urologia 25 no.1:22-27  
Ja-F '60. (MIRA 15:6)

1. Iz prologicheskoy kliniki (zav. - prof. I.M. Epshteyn) I  
Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M.  
Sechenova.

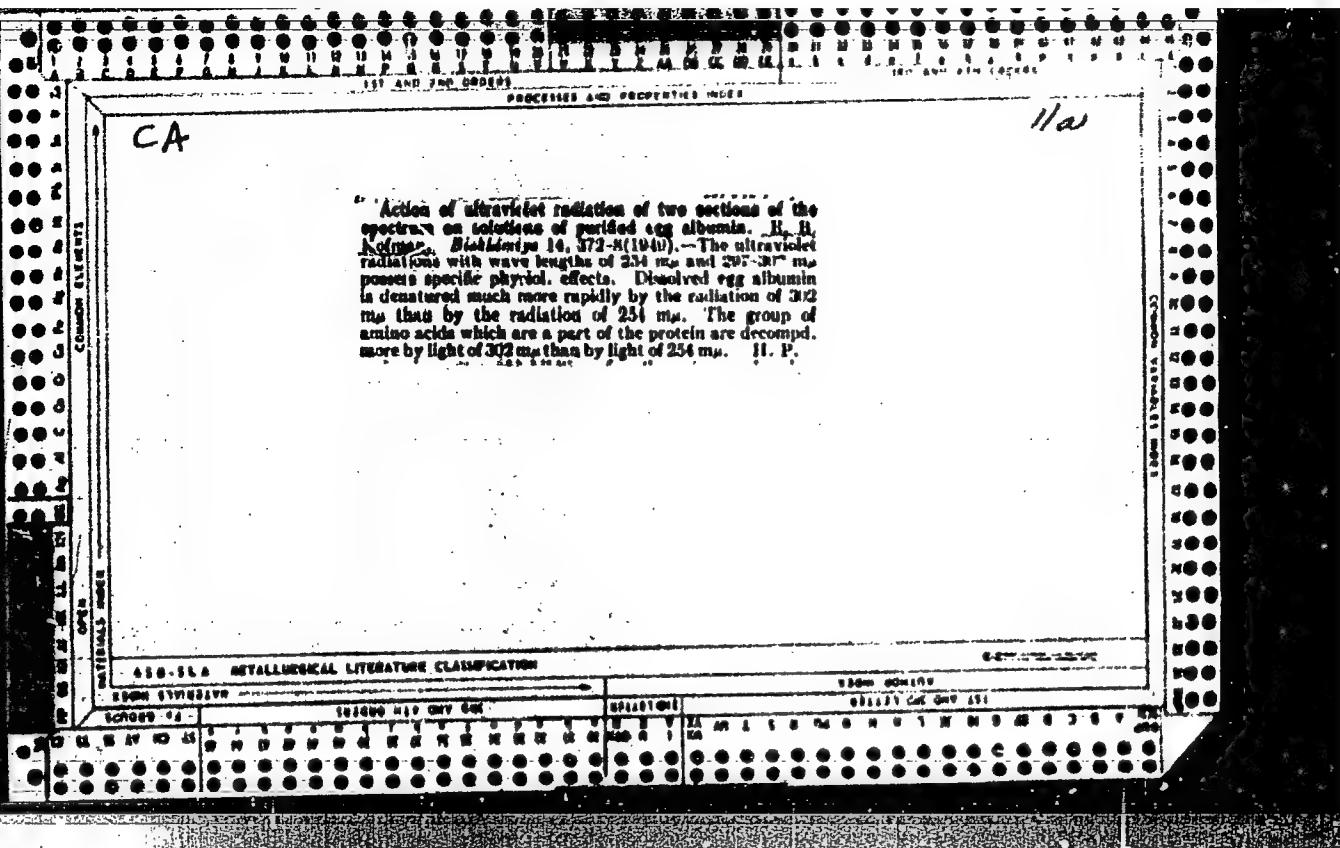
(ANTIBIOTICS)  
(URINARY ORGANS—DISEASES)



KOPMAN, Ye. B.

25619. KOPMAN, Ye. B. O deystvii ultravioletovoy radiatsii dvukh uchastkov spektra  
Na rastvory ochishchennogo Iaichnogo al'bumina. Biokhimiya, 1949, Vyp.4,  
S. 305-07

SO: Letopis' Zhurnal' Nykh Statey, Vol. 34, Moskva, 1949.



CA

118

Photochemical changes in solutions of egg albumin proceeding independently of photodenaturation. M.-M. Koltun (Biophys. Inst., Acad. Med. Sci., Moscow). Biokhimiya 13, 634-40 (1960); cf. Crammer and Neuberger, C.A. 57, 2288; 43, 9100. —Ultraviolet illumination of an egg albumin soln. brings about a change which proceeds faster than photodenaturation, with the protein continuing to exist in the native condition. One of the reactions consists in a change in the condition of the hydroxyphenyl tyrosine groups prior to photodenaturation, a change to which the same groups are subjected during heat denaturation. Photoxidation is another reaction. A part of the sol. photoxidized protein retains its capacity towards denaturation. The initial stage of this reaction is apparently accompanied by the absorption of photons by the side chains. Photodenaturation proceeds independently of the transformation of tyrosine groups. H. Priestley

1967

KOPMAN, Ye.B.

Photooxidation of the sulphhydryl groups of dissolved egg albumen  
[with summary in English]. Biofizika 2 no.2:215-224 '57.  
(MLRA 10:6)

1. Institut biologicheskoy fiziki Akademii nauk SSSR, Moskva.  
(MERCAPTO GROUP) (ALBUMINS)  
(ULTRAVIOLET WAVES--PHYSIOLOGICAL EFFECT)

## EXCERPTA MEDICA Sec 2 Vol 12/5 Physiology May 59

1509. CHANGES IN ULTRAVIOLET ABSORPTION OF DISSOLVED MYOSIN  
UNDER DENATURATING EFFECTS (Russian text) - Kofman E. B. and  
Kalamkarova M. B. - BIOFIZIKA 1958, 3/4 (403-412) Graphs 5 Tables 1  
UV absorption was measured in myosin solutions and the apparent absorption, due  
to light scattering, and the true absorption were calculated for 252 and 276 m $\mu$ .  
Magnitudes of the true absorption were compared in activated and inactivated sol-  
utions. The effects of temperature (37°), acidity (pH 5.0), alkalinity (pH 11.0) with  
following neutralization, and calcium chloride increased the true absorption by  
23-47% for 252 m $\mu$ , and by 3-14% for 276 m $\mu$ . The increase provoked by all these  
effects was due to one and the same change of protein structure. No alterations  
were revealed at pH 10.0. Light scattering increased under the effect of heating  
and of acidity but not under that of alkali or cadmium chloride. When the protein  
solutions were alkalinized to pH 10.5, only a reversible increase of the absorption  
took place and the cited effect was not observed. pH 11.0 should apparently be re-  
garded as the point of alkali denaturation for myosin, in contra-distinction to pH  
10.0 at which only its alkali inactivation takes place. The latter may thus be dis-  
tinguished from denaturation, in which more thorough protein alteration occurs,  
by obtaining inactivated myosin with an unaltered spectrum. Myosin inactivation  
under the effect of heating is considerably in advance of the spectral alterations.  
Thermoinactivation in the presence of guanidine provoked only an increase of the  
apparent absorption and not of the true absorption. ATP (12.5 mol.:1.0 mol. of  
protein) entirely prevents the increase of both the true absorption and of light  
scattering which are provoked by heating. ATP does not prevent these phenomena  
in alkali denaturation. The observed spectrum changes are probably related to the  
aggregation of denatured myosin.

KOFMAN, Ye.B.; MALIKOVA, A.N.

Decrease of the stability and adenosinetriphosphatase activity of myosin in solution during thermal denaturation and due to the effect of cadmium chloride. Biokhimia 25 no.2:242-250 Mr-Ap '60.  
(MIRA 14:5)

1. Institut biologicheskoy fiziki Akademii nauk SSSR, Moskva.  
(MYOSIN) (ADENOSINETRIPHOSPHATASE)

KOFMAN, YE.B., SAZONENKO, M. K., KAYUSHIN, L. P., LVOV, K. M., and  
GOLUBEV, I. M. (USSR)

"Free Radicals in Muscle and Muscle Proteins."

Report presented at the 5th International Biochemistry Congress,  
Moscow, 10-16 Aug 1961

KAYUSHIN, L.P.; KOPMAN, Ye.B.; GOLUBEV, I.N.; L'YOV, K.M.; PULATOVA,  
M.K.

Transfer of energy released by the hydrolysis of adenosinetriphosphoric  
acid to contractile proteins. Biofizika 6 no. 1:20-23 '61.  
(MIRA 14:2)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.  
(MUSCLES—MOTILITY) (ADENOSINETRIPHOSPHORIC ACID)

KOFMAN, Ye.B.

Effect of adenosine triphosphoric acid and denaturation  
on the adsorption of dyes by actomyosin and myosin gels.  
Biokhimiia 26 no.4:748-757 Jl-Ag '61. (MIRA 15:6)

1. Institute of Biophysics, Academy of Sciences of the USSR,  
Moscow.

(ADENOSINE TRIPHOSPHATES) (DYES AND DYEING)  
(ACTOMYOSINS) (MYOSINS)

GABELOVA, N.A.; KOBYAKOV, V.V.; KOFMAN, Ye.B.

Structural shifts in actomyosin detected by the infrared  
spectroscopic method. Report no.1: Stretching, heating,  
hydration. Biofizika, 7 no.2:125-136'62. (MIRA 16:8)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.  
(ACTOMYOSINS—SPECTRA) (SPECTRUM, INFRARED)

KOPMAN, Ye. B.; KRISTMAN (Malikova), A. N.; MINKINA, V. P.

Relation between adenosinetriphosphatase and cholinesterase activities of myosin and its secondary structure. Biofizika 7 no. 3:370-372 '62. (MIRA 15:8)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.  
(ADENOSINETRIPHOSPHATASE) (CHOLINESTERASE) (MYOSIN)

NANKINA, V.P.; KOFMAN, Ye.B.; CHERNYAK, V.Ya.; KALANIKAROVA, M.B.

Products of the proteolysis of heavy moromyosin possessing adenosine triphosphatase activity. Biokhimia 29 no.3:424-431 My-Je '64.  
(MIRA 13:4)

1. Institut biologicheskoy fiziki AN SSSR i Institut hematologii i perelivaniya krovi Ministerstva zdravookhraneniya SSSR, Moskva.

KALAMKAROVA, M.B.; KOFMAN, Y.G.B.; FILATOVA, L.G.; SVERAKHTEL'D, I.O.

Binding of acridine orange by muscle proteins. Tzitologija 7 no.2:  
240-243 Mr-Ap '65. (MIRA 18:7)

1. Laboratoriya biofiziki zhivykh struktur Instituta biofiziki  
AN SSSR, Moskva.

KALAMKAROVA, M.B.; NANKINA, V.P.; KOFMAN, Ye.B.

Existence of myosinlike fraction of light meromyosin. Biofizika  
10 no.1:166-167 '65. (MIRA 18:5)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

KOPMAN, Ye.B., KRISTMAN, A.N.

Effect of urea and cadmium chloride on changes in the cholinesterase activity and free sulphydryl group content of light meromyosin. Bio-khimiia 30 no.2:327-333 Mr-Ap '65. (MIRA 18:7)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

KOFMAN, Ye.B.; NANKINA, V.P.

Activation of adenosinetriphosphatase of heavy meromyosin  
by actin and possible mechanisms of the actin effect.

Biofizika 10 no.6:943-945 '65. (MIRA 19z1)

1. Institut biologicheskoy fiziki AN SSSR, Moskva. Submitted  
December 4, 1964.

BUSALAYEV, I., podpolkovnik; KOFMAN, Yu., mayor

Reduce expenditures in military transportation. Tyl i snab.  
Sov. Voor. Sil 21 no.12:82-83 D '6I. (MIRA 15:1)  
(Transportation, Military)

## AUTHORS:

Boldyrev, B. G., Kofman, Yu. I.

79-28-3-44/61

## TITLE:

Investigation Within the Field of Thiosulfo Acid (Issledovan-  
iye v oblasti tiosul'fokislot). III. Alkyl Esters of Phenyl-  
methanethiosulfo Acid and Its Antiseptic Properties (III.  
Alkilefir fenilmantaniosul'fokisloty i ikh protivobakterial'-  
nyye svoystva)

## PERIODICAL:

Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 3, pp. 768-769  
(USSR)

## ABSTRACT:

In earlier works the authors observed in the investigation of alkyl esters (I) of alkanethiosulfo acids that the antiseptic activity of these compounds does not depend on the size and the structure of the radical at the oxidized sulfur, and that the activity practically remains the same for the esters of thiosulfo acids when they are of normal structure and when the number of carbon atoms does not exceed four. For this reason the authors decided to synthesize and investigate more closely the alkyl esters (II) of phenylmethanethiosulfo acid in order to check with this example how the change of the char-

Card 1/3

Investigation Within the Field of Thiosulfo Acid. III. 79-28-3-44/61  
Alkyl Esters of Phenylmethanethiosulfo Acid and Its Antiseptic Properties

acter of the radical of thiosulfo acids acts on the anti-septic activity of the esters. The synthesis of the alkyl-phenylmethanethiosulfonates was carried out according to the earlier described method (reference 1); the obtained esters are listed in the table. They are colorless, crystalline compounds with weak but specific smell, and they are easily soluble in alcohol, ether, acetone and other organic solvents but difficultly soluble in water. The investigation of the antiseptic properties of these esters (II) which was carried out by the Institute for Microbiology of the AS USSR showed that the activity of these compounds compared with the Gram positive, Gram negative and acid-proof bacteria, is smaller than with the alkyl esters of the alkanethiosulfo acids with a number of carbon atoms from 1-4; at the same time the activity of the esters increases considerably compared with the various fungi. Thus the present work proved that the anti-septic properties of thiosulfo acid not only depend on the character of the radicals bound with sulfide sulfur but also on the structure of the initial products, the thiosulfo acids. There are 1 table and 4 references, 2 of which are Soviet.

Card 2/3

Investigation Within the Field of Thiosulfo Acid. III. 79-28 3-44/61  
Alkyl Esters of Phenylmethanethiosulfo Acid and Its Antiseptic Properties

ASSOCIATION: L'vovskiy politekhnicheskiy institut (Polytechnical Institute,  
L'vov)

SUBMITTED: February 4, 1957

Card 3/3

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723610001-1

KOFNER, A. Ya.

KABANOV, I.D., inzhener; KOFNER, A.Ya., inzhener; PUCHKOVSKIY, V.V., kandidat  
tekhnicheskikh nauk.

Drying power transformers applying extraneous alternating current.  
Mlek. sta. 28 no. 6:80-81 Je '57. (MIRA 10:8)  
(Electric transformers)

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723610001-1"

VOLODIN, M.N., inzh; KOFNER, A.Ya., irzh; MUKHAMEDOV, G., inzh

Experience in using coordinating struts. Elek.sta. 29 no.9:78-80  
8 '58. (MIRA 11:11)

(Electric lines--Poles)

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723610001-1

KOPNER, F.Sh.

Calculating frames by the Cross method (shortened version). Vych.  
i org.tekh. v stroi. i proekt. no.2155-59 '64.

(MIRA 18:10)

1. Moldgiprostroy.

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723610001-1"

KOPNOVEC, L.

KOPNOVEC, L. An efficient installation for washing buses. Tr. from the German. p. 302  
-Be- A machine for polishing die diameters. Tr. fr m the German. p. 304  
-Be- Material testing by X rays. Tr. from the German. p. 304

Vol. 1, no. 10, Oct. 1956

NOVA TECHNIKA

TECHN. LOGI

Czechoslovakia

So. East European Accessions, Vol. 6, No. 5, May 1957

KOFNOVEC, L.

KOFNOVEC, L. Electromagnetic pumps for liquid metals. p. 305

Vol. 1, no. 10, Oct. 1956

NOVA TECHNIKA  
TECHNOLOGY  
Czechoslovakia

Sov. East European Accessions, Vol. 6, No. 5, May 1957

KOFNOVEC, L.

Motors of the German motor-trains. Tr. from the German. p. 333.  
(NOVA TECHNIKA, Vol. 1, No. 11, Nov 1956, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

KOFNOVEC, L.

Metal working by electroerosion. Tr. from the German. p. 335.  
(NOVA TECHNIKA, Vol. 1, No. 11, Nov 1956, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

KOFNOVEC, L.

Central reference periodicals and reference bulletins. p. 17.

VYNALEZY A NORMALISACE, OCHRANNE ZNAMKY, CHANENE VZORY. (Urad pro vynalezy a normalisaci)  
Praha, Czechoslovakia  
Vol. 3, no. 3, Mar. 1959.

Monthly list of East European Acessions (EEAI), LC, Vol. 8, no. 7  
July 1959  
Uncl.

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723610001-1

KOFNOVEC, L.

Citations in American metallurgical engineering journals. Hut listy  
16 no.3:216 Mr '61.

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723610001-1"

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723610001-1

PUNCOCHAR, Z., inz.; KECLIK, V.; JENICEK, L.; CHVATAL, V., inz.; ZIDEK, inz.;  
KOFROVEC, L.; BECVAR, J.; DEDEX, inz.

Information on metallurgy. Hut listy 17 no. 3:216-226 Mr '62.

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723610001-1"

L 44349-56 EWT(m)/EWP(k)/EWP(t)/ETI IJP(c) JD/RW

ACC NR: AP6012611

SOURCE CODE: UR/0182/66/000/004/0021/0023

AUTHOR: Frolov, G. N.; Filatov, A. I., Kofolev, V. N.

ORG: none

TITLE: Ball reeling of thin-walled small-diameter tubular products of Kh18N9T Cr-Ni steel

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 4, 1966, 21-23

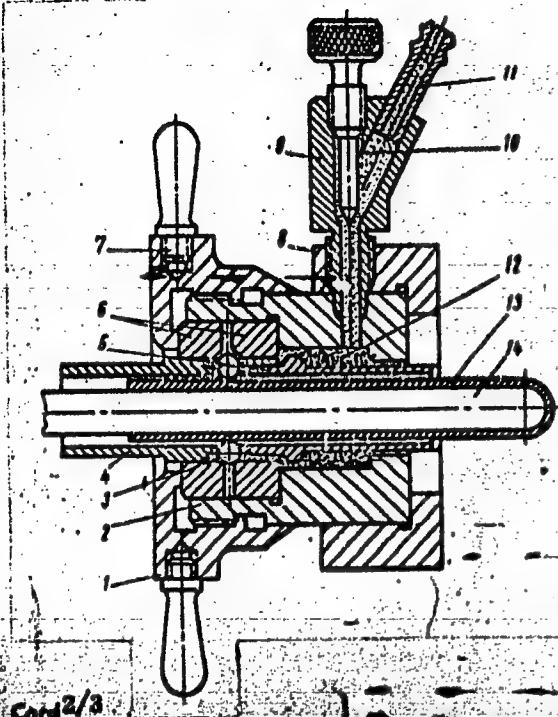
TOPIC TAGS: beta radiation counter, chromium steel, metal machining, metal rolling /  
Kh18N9T Cr-Ni steel, SBM-8 beta-radiation counter, SBM-10 beta-radiation counter,  
SBM-11 beta-radiation counter, SBM-12 beta-radiation counterABSTRACT: The development of various instruments has raised the problem of fabricating  
special tubular products of a small diameter (2-6 mm) with walls as thin as 50-40  $\mu$ . These  
products must meet various special requirements such as: 1) satisfactory airtightness assur-  
ing the preservation of a vacuum of the order of  $1 \cdot 10^{-5}$  mm Hg within the cavity for several  
years; 2) adequate purity of inside and outside surfaces, such as to dispense with the need for  
additional machining; 3) high elastic and strength properties of the walls, achieved by means  
of a high degree of work hardening (as much as 76%) during fabrication; 4) (in some cases)

Card 1/3

UDC: 621.98.986

L 44349-66

ACC NR: AP6012611



comparatively large length (150–200 mm) for a diameter of 2 mm and a wall thickness smoothly varying from 0.05 to 0.1 mm. Such requirements cannot be met by the known techniques of deep drawing and roll reeling. Hence, the authors describe a technique specially developed for this purpose and based on the ball reeling of blanks of Kh18N9T Cr-Ni steel with the aid of a lathe-mounted adjustable ball head (Fig. 1).

Fig. 1. Adjustable ball head for ball reeling

1 - micrometric nut; 2 - housing; 3 - balls; 4, 5 - retainer bushings; 6 - supporting cones; 7 - grip; 8 - holder; 9 - connecting pipe; 10 - needle; 11 - nipple (for lubricant); 12 - spring; 13 - reeled tubular product; 14 - mandrel

L 44349-66

ACC NR: AP6012611

consisting of housing 2 with working balls 3 located in between supporting cones 6. As the cones recede from or approach each other owing to the rotation of micrometric nut 1, the balls either recede from or approach the center so that the inside diameter in between the balls, and hence also the diameter of the reeled tube, is varied. Blank (tube) 13, tightly slipped over smooth mandrel 14, serves as the inner ball race, so to speak. Working balls 3 revolve around the annular gap between the blank and cones 6 (which serve as the outer ball race, so to speak), thus exerting pressure on the wall of the blank as it revolves together with the mandrel. The products thus fabricated satisfy the requirements specified above. The decisive condition is the use of balls of a sufficiently small diameter (not more than 2 mm). Owing to the compression of the material during reeling, the finished products display a satisfactory airtightness. At present the ball reeling of tubular products is regularly employed in the serial production of four types of beta-radiation counters: SBM-9, SBM-10, SBM-11, and SBM-12. Orig. art. has: 4 figures.

<sup>18</sup>  
SUB CODE: 11, 13, 20/ SUBM DATE: none/

Card 3/3 b1g

KOFRANEK, R.

CZECHOSLOVAKIA/Human and Animal Physiology - Effect of Physical Factors.

V-15

Abs Jour : Ref Zhur - Biol., No. 1958, 4565

Author : Z. Dienstbier, Ji Camsky, V. Kofranek

Inst :

Title : Influence of Narcotics and Anaesthetics on the Mortality of Animals After the Administration of a Lethal Dose of X-Rays.

Orig Pub : Casop. lekaru ceskych, 1956, 95, No 32, 889-894

Abstract : On the basis of the hypothesis of the functional and morphological sensitivity of the nervous system, experiments were carried out on rats and mice which were given narcotics and anaesthetics before a single general roentgen irradiation in doses of 550 and 700 r (corresponding LD of 100 and 30). The substances were administered one hour before irradiation, or just before irradiation in doses based on a body weight of 100 g. Barbiturates

Card 1/2

*1st Internal Clinic, and Ustava Stetka  
Fysiologie, KV, Prague.*

CZECHOSLOVAKIA/Human and Animal Physiology - Effect of Physical Factors.

V-15

Abs Jour : Ref Zhur - Biol., No 1, 1958, 4565

-dial (0.5 ml of a 5% solution), dormiral (11 mg), and pentoobarbital (12.4 mg) - administered during irradiation at the first phase of anaesthesia, or during irradiation under a deep narcosis were not effective. Urethane narcosis (0.4 ml of a 20% solution), ether narcosis (by inhalation), procaine (0.5 ml of a 1% solution) and ethyl alcohol (1.5 ml of a 20% solution) did not produce a protective effect. The absence of a protective effect (which contradicts some data in the literature) is explained by the large dose of radiation ( $LD_{100}$ ) and by the age characteristics of the experimental animals (immature rats, weight of 50 - 70 g ).

Card 2/2

KOFRANEK, VLADIMIR

DENEŠBÍER, Zdenek, MUDr.; ARIENT, Miloslav, MUDr.; KOFRANEK, Vladimír, MUDr.

No translation. Meoplasma, Bratisl. 4 no.1:15-20 1957.

1. I. Clinic of Internal Medicine, Charles University, Praha  
Central Laboratory, Military Hospital, Praha Department of  
Oncology, District Hospital, Usti nad Labem. 2. Authors'  
address: Praha 2, U nemocnice 2 (for Denešbíer) UVN, Praha-  
Střešovice (for Arient) KUMZ, onkologické oddělení, Usti n. L.  
for (Kofránek).

(LEUKOCYTES, eff. of radiations on  
x-irradiation of various parts of body in rats)

(ROENTGEN RAYS, eff.  
irradiation of various parts of body on leukocytes  
in rats)

KOFRANEK, V.; DIENSTBIER, Z.

Review of works in the field of radiobiology and isotopes published in medical periodicals during 1957 in Czechoslovakia. Cas. lek. cesk. 97 no.17, Lek. veda zahr:81-86 25 Apr 58.

(RADIATION, effects,

bibliog. (Cx))

(ISOTOPES,

bibliog. (Cx))

DIENSTBLIR, Zdenek; KOFRANEK, Vladimír; BROUSIL, Jindřich; ARIENT, Miroslav (Technická spolupráce: J. Jasan, Statistické středisko MZD Praha)

Statistical studies on health and fertility of physicians working  
with ionizing radiations. Ces. rentg. 13 no.5:330-342 O '59  
(RADIATION EFFECTS)  
(FERTILITY radiation effects)  
(PHYSICIANS)

KOPRANEK, V.; CHYSKY, J.; HELBICH, J.

Review of national works on radiobiology and radiation protection published in medical periodicals during 1958. Cas. lek. cesk. 98 no.25: Lek. veda zahr., 126-133 19 June 59.

1. Ustav jadernho vyzkumu CSAV, Ustav hygieny prace a chorob z povolani, Praha. V.K., Gorkeho 3, Praha 3.

(RADIOLOGY,  
radiobiol., review (Cs))  
(RADIATION PROTECTION,  
review (Cs))

HLAVATY, V.; HELBICH, J.; KOFRANEK, V.

Review of works on radiobiological and radio-hygienic problems  
published in Czechoslovakian medical periodicals during 1959.  
Cas.lek.cesk 100 no.3:Lek.veda svar:6-12 20 Ja '61.

1. Biofysikalni ustav lekarske fakulty KU, Praha. Ustav hygieny  
prace a chorob z povolani; Praha. Ustav jaderneho vyzkumu CSAV.

(RADIOLOGY bibliog)

KOFRANEK, Vladimir

Importance of hematologic changes in the acute postirradiation syndrome. Jaderna energie 10 no. 3/87 Mr. '66.

1. Institute of Hygiene and Occupational Diseases affiliated with the Nuclear Research Institute in Rez.

## Nuclear Medicine

CZECHOSLOVAKIA

UDC 612.111/.112.014.48-084

KOFRANEK, V.; POSPISIL, J.; DIENSTBIER, Z.; ARIENT, M.; Research Institute of Radiation Hygiene (Vyzkumny Ustav Hygieny Zareni), Prague; Biophysical Institute, Faculty of General Medicine, Charles University (Biofysikalni Ustav Fak. Vseob. Lek. KU), Prague, Chief (Prednosta) Prof Dr Z. DIENSTBIER; Department of Clinical Laboratories at the Central Military Hospital (Oddeleni Klinickych Laboratori Ustredni Vojenske Nemocnice), Prague.

"Dynamics of Peripheral Blood Changes in Relation to Combined External Radiation and the Activation of Na<sup>24</sup> in Rats. I."

Prague, Casopis Lekaru Ceskych, Vol 106, No 8, 24 Feb 67, pp 201 - 210

Abstract /Authors' English summary modified 7: Dynamics of peripheral changes of leucocytes, neutrophils, and lymphocytes in rats were investigated for 24 hours to 29 days following an irradiation by 25, 100, 600, and 1000 R of ionizing radiation from various sources. Lymphocytes are the cells most sensitive to irradiation. From the change in their numbers it is possible to determine what amount and what kind of irradiation (X-ray, gamma, neutrons) was applied. 6 Figures, 3 Tables, 57 Western, 12 Czech, 4 USSR ref-

AULOVA, J.; EBEL, J.; KOFRON, J.; POLIVKA, J.; PROSEK, V.; RYBIM, B.

The time of survival of patients with malignant tumors of the bones.  
Acta chir. orthop. trauma. Cech. 28 no.4:366-369 Ag '61.

I. II ortopedicka klinika, prednosta prof. dr. O. Hnevkovsky, chirurg.  
Klinika Pod Petrinem, prednosta doc. dr. Z. Vahala, UNV nem. na Bulovce,  
ortop. odd., prednosta doc. dr. R. Pavlansky, UNV nem. v Motole,  
chirurg. odd., prednosta prof. dr. B. Niederle, II. chirurg. klinika  
SFN, prednosta doc. dr. J. Lhotka, UVN ve Strssovicich, ortop.  
odd., prednosta dr. B. Eiselt.

(BONE AND BONES; neoplasms)

AULOVÁ, J.; EBEL, J.; KOPRON, M.; POLIVKA, J.; PROSEK, V.; RYBIN, B.

A report on patients with malignant tumors of the locomotor organs hospitalized during 1945-1960 in Prague institutions. Acta chir. orthop. trauma. Cech. 28 no.4:360-364 Ag '61.

1. II ortopedická klinika, prednosta prof. dr. O. Hnevkovský,  
chirurgická klinika ped. fak. Pod Petřínem, prednosta doc. dr. Zd.  
Vahala, UNV n/m na Bulovce, ortop. odd., prednosta doc. dr.  
R. Pavlánský, NV nem. v Motole, chirurg. odd., prednosta prof. dr.  
B. Nierderle, I. chirurgická klinika SFN, prednosta doc. dr. J. Lhotka,  
UNV ve Střešovicech, ortop. odd., prednosta dr. B. Eiselt.  
(BONE AND BONES neoplasms) (SARCOMA statistics)

KOPRON, Milos

~~POLYGRAPHED~~

CZECHOSLOVAKIA

MD

(Presumably) Orthopedic Department of the Hospital  
UNZ NV of the Capital City of Prague, Prague 8 -  
Bulovka; Director: R. Pavlansky, Docent Dr.

Prague, Prakticky Lekar, No. 13, 1962, pp 783-784

"Metastasis of Cancer in Bones as First Symptom of the  
Disease"

KOFTAN, R.

130-7-17/24

AUTHORS: Arkhipova, M.S., Mishin, V.D., Smirnov, N.S., also Koftan, R.,  
and Kanonykhin, G.I. and Lysakov, V.S.

TITLE: Symposium on Tin Economy in Tin-Plate Manufacture. (Ekonomiya  
olova pri proizvodstve beloy shesti)

PERIODICAL: Metallurg, 1957, Nr 7, pp.30-34 (USSR)

ABSTRACT: The tin consumed in hot-dip tinning accounts for about half the cost of the tin-plate; only 75-80% of the tin is used for coating the sheet, the rest goes into various waste products: mainly flux and oil scum and crystals of the alloy  $FeSn_2$  embedded in lumps of pure metallic tin. Recently ways of extracting tin from these waste products have been developed at various Soviet works and these are described in this symposium. The first contribution (pp.30-32) is by M. S. Arkhipova and V.D. Mishin of the Ural Polytechnic Institute and N.S. Smirnov of the Seversk Metallurgical Works. This describes pilot-plant work on the development of a hydro-metallurgical method of extracting tin from flux scum at the Seversk works; a full-scale plant has been working there since 1954. Flow diagrams for the process are given, together with a graph showing degree of extraction of tin against time of cementation, and optimal conditions are summarised. In the

Card 1/2

PETROV, Boris Sergeyevich, professor; MIFIN, Aleksey Griger'yevich, detsent;  
SITENINA, Dina Yefimovna, detsent; SAMKHOLO, Grigeriy Mikheyevich,  
detsent; VASIL'YEV, P.V., professor, retsensent; DIESPEROV, V.S.,  
finshener, retsensent; KOFTOV, G.IE., redakter; ARMOL'DOVA, K.S., redak-  
ter; SHITS, V.P., tekhnichesky redakter. (MLA 9:4)

[Organization and planning of production in wood processing enterprises]  
Organizatsiya i planirovaniye preizvedstva na derevobrabatyvalishchikh  
predpriatiakh. Meekva, Gospromizdat, 1955. 407 p.  
(Woodworking industries)

MIKHAYLOV, N.N., kand.geograf.nauk; KONTOV, G.Ye., kand.ekonom.nauk;  
BAKHTOV, K.K.; MESTEROV, M.V.; SMIRNOV, A.M., prof., doktor  
ekon.nauk; RUBINSKII, G.I., kand.geograf.nauk; JOKIN, D.F.,  
kand.ekon.nauk; AZOV, V.N.; KUROTAIYEV, A.P. [deceased];  
KHYLIN, A.D., prof.; YUZHOV, I.P.; RAMZAYTSEV, D.F.; AKHUDINOV,  
V.M.; SPANDAR'YAN, V.B., red.; SHLEMISKAYA, V.A., red.issd-va;  
BRONZOVA, I.A., tekhn.red.

[Handbook of Soviet foreign commerce] Spravochnik po vneshnei  
torgovle SSSR. Moskva, Vneshtorgizdat, 1958. 270 p.  
(Commerce) (MIRA 12:2)

KINETICS

20 May

MANUFACTURING OF REFRactory METALS (USSR)

I. V. Tikhonov and S. P. Kostylev

Refractory billets were mechanically cleaned or pickled, spot welded  
to the welding material, heated in vacuum or in a protective atmosphere.

After annealing, heat treatment, rolling, drawing, and other operations

Card 1/2

20 May

RECORDED (Cont'd)

RECORDED (Cont'd)

A sharp increase in surface roughness  
beginning was observed.

Card 2/2

STROM, D.A.; ISHCHUK, Yu.L.; STROM, L.D.; KOFTUN, T.I.

Improving the technology of the manufacture of synthetic  
leather fat. Trudy BONMZ no.1838-50 '63. (MLRA 16:6)

(Oils and fats)

STROM, D.A.; insh. KOFTUN, T.I., insh.

Improving the production process of synthetic fats. Naftianik 5  
no.6:12-13 Je '60. (MIRA 13:7)

1. Berdyanskij naftemasloszavod.  
(Oils and fats)

S/092/69/000/006/001/001  
A051/A026

AUTHORS: Strom, D.A., Koftun, T.I., Engineers

TITLE: Perfecting the Production of Synthetic Fat

PERIODICAL: Neftyanik, 1960, No. 6, pp. 14 - 15

TEXT: The authors refer to the production method for synthetic fat, using zinc oxide as catalyst, which was described in Neftyanik No. 6, 1959, and submitted by D.A. Strom. He stressed the lengthy duration of the process (8 - 15 h) to be the disadvantage of the method. The experimental department of the Berdyansk Refinery conducted tests in order to shorten the cycle, involving the replacement of the zinc oxide with a more effective catalyst. It was established as a result that by using sulfuric acid, phosphorous anhydride or zinc chloride, the duration of the process could be shortened considerably, and a higher degree in converting fatty acids to synthetic fat could be accomplished. The production process of synthetic fat in industrial reactor-mixers, using sulfuric acid as catalyst, is described as being carried out under strict maintenance of temperature, measuring out the components and observing the sequence of their introduction. Synthetic fatty acids were taken as initial raw material. They are fed from the tank to the

Card 1/6

Perfecting the Production of Synthetic Fat

S/092/60/000/006/001/001  
A051/A026

reactor by a pump (1) (see Figure) with the mixer (3) switched on, and are dehydrated there till the residual water content is not more than 0.5% by weight. The heat-carrier is fed to the tank (2) of the reactor-mixer and the temperature of the material is raised to 130 - 135°C. The catalyst in the form of a fine stream is fed to the dry material - a 90% sulfuric acid from the measuring container (5). The supply of the acid is accomplished in two stages to avoid violent boiling of the fatty acids in the reactor-mixer. After introducing the first batch of the sulfuric acid comprising 2/3 of the required estimated quantity, ethylene glycol, in the form of a small continuous stream, is fed to the reactor from the measuring container (4) in the amount of 6.5%. If heavy foam is forming, the supply of the ethylene glycol is stopped and, if this does not help, the mixing in the reactor is stopped till the foam is reduced; then the supply of the ethylene glycol is resumed and the mixing starts again. After the whole amount of the ethylene glycol has been introduced, the remainder of the sulfuric acid is added (1/3 of the estimated amount) and the temperature is raised to 150 - 160°C during this process. The laboratory check of the process is carried out according to the acid number of the reacting mass. The acid number drops as the reaction (of the esterification) becomes more complete and when 25 mg of KOH/g is reached, the fat is considered ready for pouring. Comparative characteristics of initial raw material and syn-

Card 2/6

S/092/60/000/006/001/001

A051/A026

Perfecting the Production of Synthetic Fat

thetic fat, obtained under the old technological procedure in industry, using zinc oxide as catalyst and under that of the new one using sulfuric acid as catalyst, are shown in Table 1. The quality of the synthetic fat obtained by the sulfuric acid-catalyst method satisfies the main indices of technical standards. The iodine number is brought to zero, the acid number is not higher than 25 mg KOH/g and the saponification number not less than 160 mg KOH/g. A check of the change in quality of the synthetic fat during storage showed that, when sulfuric acid was used as catalyst, the product was more stable, which was not the case for the zinc oxide-catalyst product (Table 2). The author states that by using the new catalyst, the Berdyansk Oil Refinery was able to exceed its 1959 production plan for synthetic fat, to reduce the overhead cost and improve the quality. Besides, the need for zinc oxide, an expensive material, was eliminated at the refinery. The latter is needed for the production of zinc whites. There are 1 figure and 2 tables.

ASSOCIATION: Berdyanskiy Neftemaslozavod (Berdyansk Petroleum - Oil Refinery)

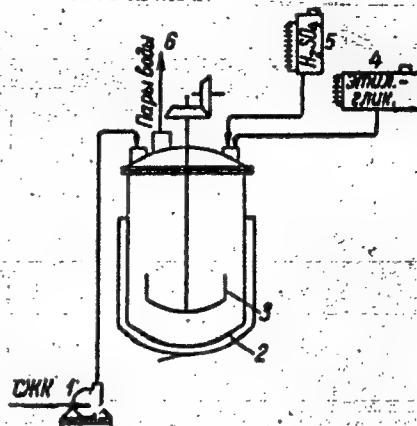
Card 3/6

Perfecting the Production of Synthetic Fat

S/092/60/000/006/001/001  
A051/A026

Figure (p. 14):

- 1 - CKK (S Zh K) - SFA synthetic acids pump
- 2 - tank
- 3 - mixer
- 4 - ethyl glycol container
- 5 - H<sub>2</sub>SO<sub>4</sub> dosing container
- 6 - water vapors.



Card 4/6

<i>F KOGA, L S</i> <small>PROCESSES AND PROPERTIES INDEX</small>	
<p><b>268. INCREASING PRODUCTION OF PORTLAND CEMENT BY USING COAL ASHES AS HYDRAULIC ADDITIVE.</b> Kogha, L. S. (Cement, 1947, vol. 13, (1), 12-13; abstr. in Chem. Abstr., 20 June 1948, vol. 42, 4321).</p> <p>The addition of hydraulic materials in the grinding process is an effective means of raising the output of cement, since it increases the quantity of ready cement per unit of clinker grounds. Also it reduces the quantity of fuel and power per unit of product. The existing standard allows the addition of up to 1% of hydraulic materials. Besides natural hydraulic substance the metallurgical slags, there can be used as hydraulic additives acid coal ashes, i.e. ashes in which the sum of <math>\text{SiO}_2</math>, <math>\text{Al}_2\text{O}_3</math>, and <math>\text{FeO}</math> exceeds 50%. Such ashes are available from power plants. To determine the hydraulic activity, mix 65-75% of finely ground ashes, ground brick, or similar material with 25-35% of powdered slaked lime alone as control. Keep the cakes for 7 days in a humid atmosphere at 20-<del>25</del> 5°, after which place them in water at room temperature for 1 day. If the cakes retain their shape and do not disintegrate, the tested material is suitable for use as hydraulic additive to cement.</p>	
<small>ABSTRACTS OF METALLURGICAL LITERATURE CLASSIFICATION</small>	
SUBJECT GROUP NUMBER SUBNUMBER SUBSUBNUMBER SUBSUBSUBNUMBER	CLASSIFICATION GROUP NUMBER SUBNUMBER SUBSUBNUMBER SUBSUBSUBNUMBER

KOGACHEV, B.V.

S/194/61/000/011/005/070  
D256/D302

AUTHOR:

Kogachev, B.V.

TITLE:

Transistorized low-frequency apparatus for prospecting

PERIODICAL:

Referativnyy zhurnal. Avtomatika i radioelektronika,  
no. 11, 1961, 5, abstract 11 A38 (Tr. Tsentr. n.-i.  
gornorazved. in-ta, 1959, no. 34, 52-67)

TEXT:

A description is given of an apparatus released by TsNIGRI for prospecting for well conducting minerals, using the following methods: 2-frame method, generator and receiver frames method, measuring the intensity of an alternating magnetic field, etc. The following test instruments are described: 1) A double frequency 480 and 1980 c/s receiver for measuring components of alternating magnetic fields and the slope angle of the full field vector (dimensions: 255 x 110 x 125 mm, error < 2% of the upper limit of measurements, weight including batteries, less frame: 2 kg); 2) Micro-

Card 1/2

S/194/61/000/011/005/070  
D256/D302

Transistorized low-frequency...

voltmeter "Aldan", for measuring the components of alternating magnetic fields at 40 c/s frequency (range of measurements 30 to 3000 microwatt for 100 scale divisions, error < 1% of the upper limit of the measurements, total weight 3 kg); 3) Phase-amplitude compensator for measuring amplitude ratios and phase-shifts of two voltages (480 c/s working frequency, accuracy 15', weight 4.5 kg); 4) Portable miniature generator ПМГ-1 (PMG-1)-type: frequency 480 and 1980 c/s, size: 255 x 110 x 125 mm, weight including batteries: 3 kg, current drain: 100 mA, time of operation 80 hours; 5) Portable miniature generator ПМГ-2 (PMG-2)-type for inducing alternating e.m. fields of 240 and 1980 c/s frequency, 7 W power, efficiency: 70%, size: 255 x 110 x 140 mm, weight: 1.5 kg, supplied from 7 НКМ-10 (7 NKN-10)-type wet batteries. [Abstracter's note: Complete translation]

Card 2/2

KAZANTSEV, Ye.I.; KOGADEYEV, A.A.; SHKLYAR, M.S.; FOMINA, Z.M.

Redesigning blooming mill regenerator soaking pits with an  
extended working chamber. Stal' 24 no.1:82-84 Ja '64.  
(MIRA 17:2)

1. Donetskii politekhnicheskii institut i Makeyevskii  
metallurgicheskii zavod.

KAZANTSEV, Ye.I.; ZHUKOV, A.I.; KOGADEYEV, A.A.; SHKLYAR, M.S.;  
GELLER, G.Ya.

Operating regenerative soaking pits heated by cold gas.

Stal' 25 no. 3:274-276 Mr '65.

(MIRA 18:4)

I. Donetskiy politekhnicheskiy institut i Makeyevskiy  
metallurgicheskiy zavod.

AUTHOR: Kogalovskiy, S.R. (Saratov)

SOV/42-13-3-30/41

TITLE: On Universal Classes of Algebras Closed With Respect to  
Direct Products (Ob universal'nykh klassakh algebr, zamknutykh  
otnositel'no pramykh proizvedeniy)

PERIODICAL: Uspekhi matematicheskikh nauk, 1958, Vol 13, Nr 3, pp 241-242 (USSR)

ABSTRACT: The author generalizes a result of Birkhoff and gives a criterion that a class of algebras being closed with respect to direct products is universal.

Lemma 1: A universal class of algebras being closed with respect to direct products is defined by a system  $\Sigma$  of sentences such that every sentence of  $\Sigma$  either has the form

(1)  $(x_1) \dots (x_n) \{ g_1 = h_1 \wedge \dots \wedge g_s = h_s \rightarrow g_{s+1} = h_{s+1} \}$

or the form

(2)  $(x_1) \dots (x_n) \{ \sim p_1 = q_1 \vee \dots \vee \sim p_t = q_t \},$

where  $g_1, h_1, \dots, g_{s+1}, h_{s+1}$  are polynomials in  $x_1, \dots, x_n$  and $p_1, q_1, \dots, p_t, q_t$  are polynomials in  $x_1, \dots, x_m$ .

Conclusion: A class of algebras is quasiprimitive (i.e. is determined only by (1)) then and only then if it is universal.

Card 1/3

SOV

On Universal Classes of Algebras  
Direct Products

Closed With Respect to /42-13-3-30/41

closed with respect to direct products and contains an algebra with a single element (0-algebra).

Lemma 2: Every universal class of algebras  $K$  has the property that  $A \in K$  holds then and only then if every finitely generated subalgebra of  $A$  can be imbedded isomorphically into a certain algebra of  $K$ .

The factor algebra of the algebra  $A$  generated by a stable equivalence relation  $\epsilon$  is denoted by  $A/\epsilon$ . A family  $\{\epsilon_j\}_{j \in J}$  of stable equivalence relations on  $A$  is called a chain if for all  $j_1$  and  $j_2$  there holds either  $\epsilon_{j_1} \subseteq \epsilon_{j_2}$  or  $\epsilon_{j_2} \subseteq \epsilon_{j_1}$ .

Lemma 3: If  $\{\epsilon_j\}_{j \in J}$  is a chain, then  $\bigcup_{j \in J} \epsilon_j$  and  $\bigcap_{j \in J} \epsilon_j$  are stable equivalence relations.  
The class of algebras  $K$  has the inf-property if for every algebra  $A$  and every chain  $\{\epsilon_j\}_{j \in J}$  of stable relations on  $A$  there holds: from  $\{A/\epsilon_j\}_{j \in J} \subseteq K$  there follows  $A/\bigcup_{j \in J} \epsilon_j \in K$ .

Card 2/3

On Universal Classes of Algebras  
Direct Products

Closed With Respect to /42-13-3-30/41  
<sup>SOV</sup>

Correspondingly the sup-property is defined.

Lemma 4: Every universal class of algebras has the inf-property  
and the sup-property.

Theorem: In order that a class of algebras being closed with  
respect to direct products is universal it is necessary and  
sufficient that it has the property of Lemma 2 and the inf-  
property.

Card 3/3

AUTHOR: Kogalovskiy, S.R.

SOV/20-122-5-3/56

TITLE: On Universal Classes of Algebras (Ob universal'nykh klassakh algebr)

PERIODICAL: Doklady Akademii nauk, SSSR, 1958, Vol 122, Nr 5, pp 759-761 (USSR)

ABSTRACT: The author joins the investigations of Mal'tsev [Ref 2,1] but he uses several notions in a somewhat changed sense. The smallest universal class containing K is called the universal closure  $U(K)$  of the class K. On the set of all algebras, these closure operation defines a topological structure  $UC_g$ . The class  $L \subset K$  is called universal with respect to K if L is a closed set in the structure  $UC_g(K)$  which is induced in K by  $UC_g$ . The class K is called locally definable if it has the following property: The algebra  $\mathcal{A}$  belongs to K then and only then if each of its finitely generated subalgebras belongs to K.

Theorem: A class of algebras is universal then and only then if it is locally definable and closed.

Theorem: Let  $K_\omega$  be the class of all finite and countable algebras. The class  $LCK_\omega$  is universal in  $K_\omega$  then and only then if L is closed in  $K_\omega$  and if  $L = S(L)$ , where  $S(L)$  is the class of all subalgebras of all algebras of L.

Card 1/2

On Universal Classes of Algebras

SOV/20-122-5-3/56

Five other similar theorems are formulated.

There are 5 references, 3 of which are Soviet, 1 German, and 1 Dutch.

ASSOCIATION: Saratovskiy gosudarstvennyy universitet imeni N.G.Chernyshevskogo  
(Saratov State University imeni N.G.Chernyshevskiy)

PRESENTED: May 4, 1958, by A.I.Mal'tsev, Academician

SUBMITTED: April 29, 1958

Card 2/2

16(1)

AUTHOR:

Kogalovskiy, S.R.

SOV/140-59-3-9/22

TITLE:

On Universal Classes of Algebras Closed With Respect to Direct Products

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1959, № 2,  
pp 88-96 (USSR)

ABSTRACT: Definition: The class K is called locally determinable if it has the following property: the algebra Cl belongs to K then and only then if each of its finitely generated subalgebras is isomorphic to a certain algebra of K.

Theorem: A class of algebras is universal then and only then if it is locally determinable and closed.

The author thanks Professor N.G.Chudakov, Professor V.V.Vagner, and the Academician A.I.Mal'tsev for the attention for the present paper.

There are 7 references, 2 of which are Soviet, 1 German, 1 Dutch, 1 Polish, 1 English, and 1 American.

ASSOCIATION: Saratovskiy gosudarstvennyy universitet imeni N.G.Chernyshevskogo  
(Saratov State University imeni N.G.Chernyshevskiy)

SUBMITTED: March 22, 1958

Card 1/1

16(1)

AUTHOR: Kogalovskiy, S.R. SOV/20-124-2-4/71

TITLE: Universal Model Classes (Universal'nyye klassy modeley)

PERIODICAL: Doklady Akademii nauk SSSR, 19,9. Vol. 124, Nr. 2, pp. 260-263 (USSR)

ABSTRACT: In the present paper the author gives structural characteristics of the universal model classes easily transferable to an arbitrary subcategory of the category of all models of a given type (transferable in the sense that they permit within the compass of the considered subcategory to characterize all classes universal in it). For model classes with a finite or countable set of fundamental predicates the author's assertions are complete. In the general case he only obtains partial results. He considers the models abstract in the sense of Mal'tsev; the identity is understood relatively also in the sense of Mal'tsev. The paper consists of three chapters. In the first one the author gives three lemmas on closures of subsets of the complete lattice. The second chapter contains the principal results in seven theorems which are used in the third chapter for the establishment of proper algebraic structural characteristics of the universal classes of algebras (five theorems). For the proofs the author uses essentially the axiom of choice and results of Tarski.

Card 1/2

Universal Model Classes

SOV/20-124-2-4/71

There are 9 references, 6 of which are Soviet, and 3 Dutch.

ASSOCIATION: Saratovskiy gosudarstvennyy universitet imeni N.O.Chernyshevskogo  
(Saratov State University imeni N.O.Chernyshevskiy)

PRESENTED: September 9, 1958, by A.I.Mal'tsev, Academician

SUBMITTED: August 20, 1958

Card 2/2

KOZLOVSKIY, S. R., Cand Phys-Math Sci (diss) -- "The structural characteristics of universal classes". Saratov, 1960. 6 pp (Saratov State U im N. G. Chernyshevskiy), 170 copies (KL, No 10, 1960, 125)

KOGALOVSKIY, S.R.

General method for obtaining the structural characteristics of  
axiomatized classes. Dokl. AN SSSR 136 no.6:1291-1294 P '61.  
(MIRA 14:3)

I. Saratovskiy avtodorozhnyy institut. Predstavлено akademikom  
A.I. Mal'tsevym.  
(Aggregates)

KOGALOVSKIY, S.R.

Multiplicative semigroups of rings. Dokl. AN SSSR 140 no.5:1005-  
1007 O '61. (MIRA 15:2)

1. Saratovskiy avtodorozhnyy institut. Predstavлено академиком

A.I.Mal'tsevym.

(Groups, Theory of)  
(Rings(Algebra))

KOGALOVSKIY, S.R.

Quasi-projective classes of models. Dokl. AN SSSR 148 no.3  
505-507 Ja '63. (MIRA 16:2)

1. Saratovskiy avtodoroshnyy institut. Predstavлено академиком  
A.I. Mal'tsevym. (Material models)

KOGALOVSKIY, S.R.

Structural characteristics of universal classes. Sib.mat.zbir.  
4 no.1:97-119 Ja-P '63. (MIRA 1612)  
(Mathematical models)

KIGALOVSKIY, S.R.

Regulation between finite-projective and finite-reductive classes  
of models. Dokl. AN SSSR 155 no.6:1255-1257 Ap '64.

(MIRA 17:4)

1. Saratovskiy politekhnicheskiy institut. Predstavлено  
akademikom A.I.Mal'tsevym.